



GUIDELINES FOR THE USE OF **GENERATIVE** **ARTIFICIAL INTELLIGENCE** IN TEACHING AND LEARNING

UTM —————





Guidelines for the Use of Generative Artificial Intelligence in Teaching and Learning Universiti Teknologi Malaysia.

Name	: Guidelines for the Use of Generative Artificial Intelligence in Teaching and Learning, UTM
Number	: Academic Circular No. 3/2024
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Official link	: https://utmcdex.utm/p-h-g/

SECTION 1: INTRODUCTION

1.1 PURPOSE

These guidelines are provided to ensure that teaching and learning sessions at UTM are effective, up-to-date, relevant and adhere to the quality standards set by relevant programmes and professional bodies, with the goal of producing ethical graduates who embody soft skills and meet UTM graduate attributes.

1.2 SCOPE

The scope of these guidelines includes:

- I. Applicable to all academic programmes, both undergraduate and postgraduate at UTM, including full-time and part-time, that intend to use Generative Artificial Intelligence (GAI) in their programmes.

1.3 RELATED POLICIES AND PROCEDURES

Related policies include:

- I. Polisi Akademik UTM
- II. Peraturan Akademik Pra Siswazah UTM
- III. Peraturan Akademik Pengajian Siswazah UTM

Related guidelines include:

- I. Garis Panduan Pembelajaran dan Pengajaran UTM

1.4 DEFINITIONS

The definitions applied in this guideline are as follows:

Term/ Abbreviation	Definition/Explanation
Academic Staff	Refers to UTM staff appointed permanently, on contract or part-time to positions such as Professor, Associate Professor, Senior Lecturer, Lecturer, Language Teacher, and staff under the Flexible Academic Scheme (SAF) including Academic Executives.
PPP Staff	Refers to the non-academic staff (Management, professional and implementation) of UTM.
Students	Individuals enrolled in academic programmes offered by UTM.
Training	The process of knowledge transfer aims to enhance knowledge, skills, and attitudes to meet the current needs and demands within the organisation. It includes conventions, courses, workshops/retreats, labs, seminars/briefings, colloquia, forums, symposiums, official/corporate/educational visits, counselling clinics, and other programs that fulfil the definition of training.
Professional Development	The learning process for professional development and the enhancement of individual competencies enables individuals to understand, apply new knowledge and skills, and be prepared to face changes and challenges in their tasks throughout their service period.
Plagiarism	The use of ideas, words, and/or work of others without acknowledging the original source.
Course	One unit of instruction and teaching of a program also known as a module, subject, or unit.

Teaching and Learning Practices	Teaching and learning methods refer to the approaches, practices and activities for a particular course. This includes teaching and learning approaches based on the New Academia Learning Innovation (NALI) framework.
Generative Artificial Intelligence	Generative Artificial Intelligence refers to a type of artificial intelligence technology that can produce various types of content including text, images, audio, and synthetic data.
Learning Assessment	An activity or process of integrated data collection and interpretation related to learning. This activity or process is carried out using various assessment methods in the form of formative and summative assessments.
Tools	Tools encompass applications, software, and various sources of GAI services.

1.5 LEGAL CONTEXT

Reference documents for this guideline include:

Document	Reference Clause
Postgraduate Academic Regulations	Whole document
Undergraduate Academic Regulations	Whole document
Part-time Program Academic Regulations	Whole document
MQA Advisory Note No 2/2023 on the use of GAI in Higher Education	Whole document

SECTION 2 : IMPLEMENTATION DETAILS

2.1 Guidance on the use of GAI at UTM includes activities such as:

- i. GAI in teaching and learning,
- ii. Ethics and academic integrity,
- iii. Research and publication, and
- iv. Professional training and development for GAI.

2.2 GAI in Teaching and Learning

Teaching and learning utilising GAI include teaching methods, assessment, and student learning such as the following:

2.2.1 Academic staff need to ensure that suitable teaching methods are utilised in line with the potential of GAI in teaching and learning. These teaching methods should encourage collaboration, student engagement in activities, critical and creative thinking for mastering course learning outcomes.

2.2.2 Learning assessments need to be designed to be contextual, involving real-world problems, aligned with learning needs to enable the assessment process to be optimized by considering the potential of GAI as follows:

2.2.2.1 Continuous assessment methods that demonstrate deep mastery need to be prioritized, such as demonstrations, presentations, discussions, interviews and other appropriate assessments, because GAI applications can lead to academic assignment outcomes prepared by students not truly reflecting their mastery.

2.2.3 Academic staff should clearly communicate the use of GAI in course assessments to students in accordance with university guidelines.

2.2.4 The utilization of GAI should be optimized by repeating the use of appropriate prompts, analysing the acquired information, synthesizing (e.g., modifying, combining, processing, interconnecting) GAI findings, assessing the accuracy and validity of information to obtain genuine and authentic results as illustrated in Figure 1.

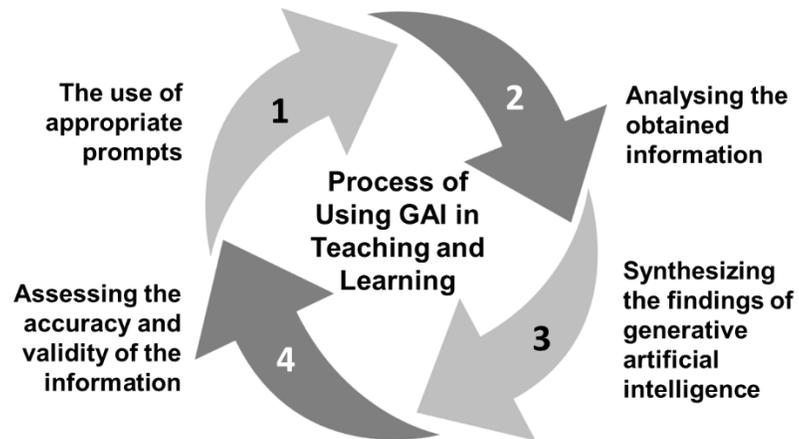


Figure 1: The Process of Using GAI in Teaching and Learning

2.2.5 Academic staff, educational professionals, and students are responsible for enhancing their skills in using GAI to support teaching and learning optimally and ethically in line with course requirements.

2.3 Learning Ethics and Academic Integrity

For learning ethics and academic integrity, the following aspects need to be considered:

- 2.3.1 The use of GAI must comply with Academic Regulations and other professional standard documents adopted by the university.
- 2.3.2 Ensure that writings and works list the GAI references used.
- 2.3.3 The use of GAI must be listed in assignments and works for T&L activities, including the developer information, tool name, tool version, access date, and URL link (if available) based on the following format:

Developer (Year). Tool Name (Version). Retrieved [Access Date] from [URL]

Example: XYZ AI Labs. (2023). GenAI (Version 2.1). Retrieved October 1, 2023, from [URL]

- 2.3.4 Academic staff must explain to students the purpose of using GAI in the implemented teaching and learning activities.
- 2.3.5 Academic staff and students are responsible for ensuring the validity of the outcomes produced by GAI.
- 2.3.6 The outcomes from the use of GAI must be evaluated by academic staff, educational professionals, and students based on the following characteristics:
 - 2.3.6.1 Validity and accountability
 - 2.3.6.2 Transparency and reliability
 - 2.3.6.3 Guided by ethics, core University values, laws, and regulations
 - 2.3.6.4 Fairness, equity, and non-discrimination

2.3.7 Any writing and works in teaching and learning activities that do not disclose the use of GAI (if applicable) can be categorised as plagiarism according to University Academic Regulations.

2.4 **Research and Publication**

For research and publication, the following aspects need to be considered:

2.4.1 The use of services and tools such as proofreaders, proofreading tools, spelling checkers, dictionaries and thesauruses is acceptable.

2.4.2 The use of GAI services and tools beyond those mentioned in 2.4.1 must be explicitly stated.

2.4.3 GAI tools cannot be listed as co-authors in any publication as they cannot be held accountable for the content and findings reported.

2.4.4 Academic staff, educational professionals and students are responsible for the findings from GAI tools that contain errors, biases, and inaccuracies (e.g., data, algorithms, filters, etc.).

2.4.5 The use and selection of GAI tools should consider:

2.4.5.1 Compliance with University Academic Regulations.

2.4.5.2 Adherence to ethical principles and values.

2.4.5.3 Tools that are stable and reliable from a technical perspective.

2.4.5.4 Considered of cultural, religious and societal sentiments.

2.4.6 The characteristics of reliable GAI tools are as follows:

2.4.6.1 Empowering individuals to make better decisions.

- 2.4.6.2 Having data privacy management and protection systems, ensuring safe usage.
- 2.4.6.3 Transparency in data, systems, and AI models.
- 2.4.6.4 Fairness, equity, and non-discrimination for all relevant stakeholders.
- 2.4.6.5 Appropriate mechanisms provided to enable accountability for AI systems and their outcomes.

2.5 Professional Training and Development for GAI

Academic and non-academic staff, and students are encouraged to undergo training and professional development in GAI to ensure effective and ethical use of GAI through the following approaches:

- i. Gaining exposure to the potential and implications of GAI,
- ii. Identifying the latest GAI tools,
- iii. Enhancing competency in using GAI.

2.5.1 Academic staff and educational professionals are encouraged to participate in GAI training and professional development, referring to the effective training procedures periodically.

2.5.2 Students are encouraged to participate in GAI training and professional development through user education programs provided by the UTM Library.

2.5.3 Departments or units providing or organising GAI training and professional development are suggested to incorporate the following content into training modules based on stakeholder categories:

- 2.5.3.1 General Exposures to GAI (*Awareness*)
- 2.5.3.2 Risks of GAI Use
- 2.5.3.3 Benefits of GAI

2.5.3.4 GAI Tools

2.5.3.5 Best Practices in GAI Usage

2.6 ROLES AND RESPONSIBILITIES

The following are the responsibilities of entities at UTM related to the use of GAI in teaching and learning:

2.6.1 University Information and Communication Technology Center

Responsible for providing infrastructure and overseeing cybersecurity for the use of GAI tools within UTM as implemented by UTM Digital.

2.6.2 UTM Library

Responsible for providing training to students on the ethical and effective use of GAI.

2.6.3 University Training Provider Center

Responsible for providing and managing training and professional development for academic staff and educational professionals related to GAI in collaboration with relevant departments such as UTM CTLD.

2.6.4 University Teaching and Learning Center

Responsible for providing policies and regulations for the use of GAI in teaching and learning as guidance on the methods of using GAI in teaching and learning, as implemented by UTM CDex.

2.6.5 School of Graduate Studies (SPS)

Responsible for supporting activities to enhance postgraduate students' skills in the ethical and optimal use of GAI for teaching, learning and research.

2.6.6 School of Undergraduate Studies (UGS)

Responsible for supporting activities to enhance graduate students' skills in the ethical and optimal use of GAI for teaching, learning and research.

2.6.7 Faculties

Responsible for monitoring the use of GAI in teaching, learning, and assessment by academic staff and students.

SECTION 3 : ADMINISTRATION

3.1 GUIDELINE OWNERSHIP AND POLICY DOCUMENT MANAGEMENT

Guideline Owner	Center for Advancement in Digital and Flexible Learning, UTM CDex
PTJ Policy Document Manager	Deputy Director, Center for Advancement in Digital and Flexible Learning, UTM CDex
Policy Document Manager	Head of Governance Section

3.2 RESPONSIBILITIES

Guideline Owner	<ol style="list-style-type: none">1. The Guideline Owner is responsible for amending the Guidelines and obtaining certification from JKTDEU followed by approval from JPU/Senate.2. The Guideline Owner is responsible for ensuring that the relevant Guidelines are registered in the UTM Policy Register.3. The Guideline Owner is responsible for
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	<p>ensuring that the relevant Guidelines are publicized to the university community.</p> <p>4. The Guideline Owner is responsible for reviewing the Guidelines periodically.</p>
PTJ Policy Document Manager	<p>1. Responsible for all storage, recording, and updating of Guidelines at the departmental level.</p> <p>2. Responsible for monitoring and ensuring the implementation of Guidelines at the departmental level</p>
Policy Document Manager	<p>1. Responsible for all storage, recording, and updating of Guidelines.</p> <p>2. Responsible for ensuring that all Guidelines approved by the University are gazetted by the Registrar.</p> <p>3. Responsible as Secretary to JKDEU</p>

3.3 MONITORING AND DISSEMINATION METHODS

Monitoring and Continuous Quality Improvement (CQI)	<p>1. All University Guidelines shall be reviewed periodically (maximum 5 years) to ensure their relevance.</p> <p>2. Any party may propose amendments to the Guidelines by informing the Guideline Owner. Any amendments shall refer to the Policy Document Management Procedure.</p> <p>3. The Guideline Owner shall inform the Policy Document Manager of any amendments to the guidelines.</p>
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**Publication /
Dissemination of
Guidelines**

- 1. Guidelines approved by the Senate/JPU will be registered in the UTM Policy Register by the Policy Document Manager and gazetted by the Registrar through University Circulars.**
- 2. The Guideline Owner shall prepare materials for the effective implementation of the approved and gazetted Guidelines.**
- 3. Guidelines must be systematically stored according to clusters in the UTM Policy Register.**
- 4. Guidelines may be accessed by university members.**

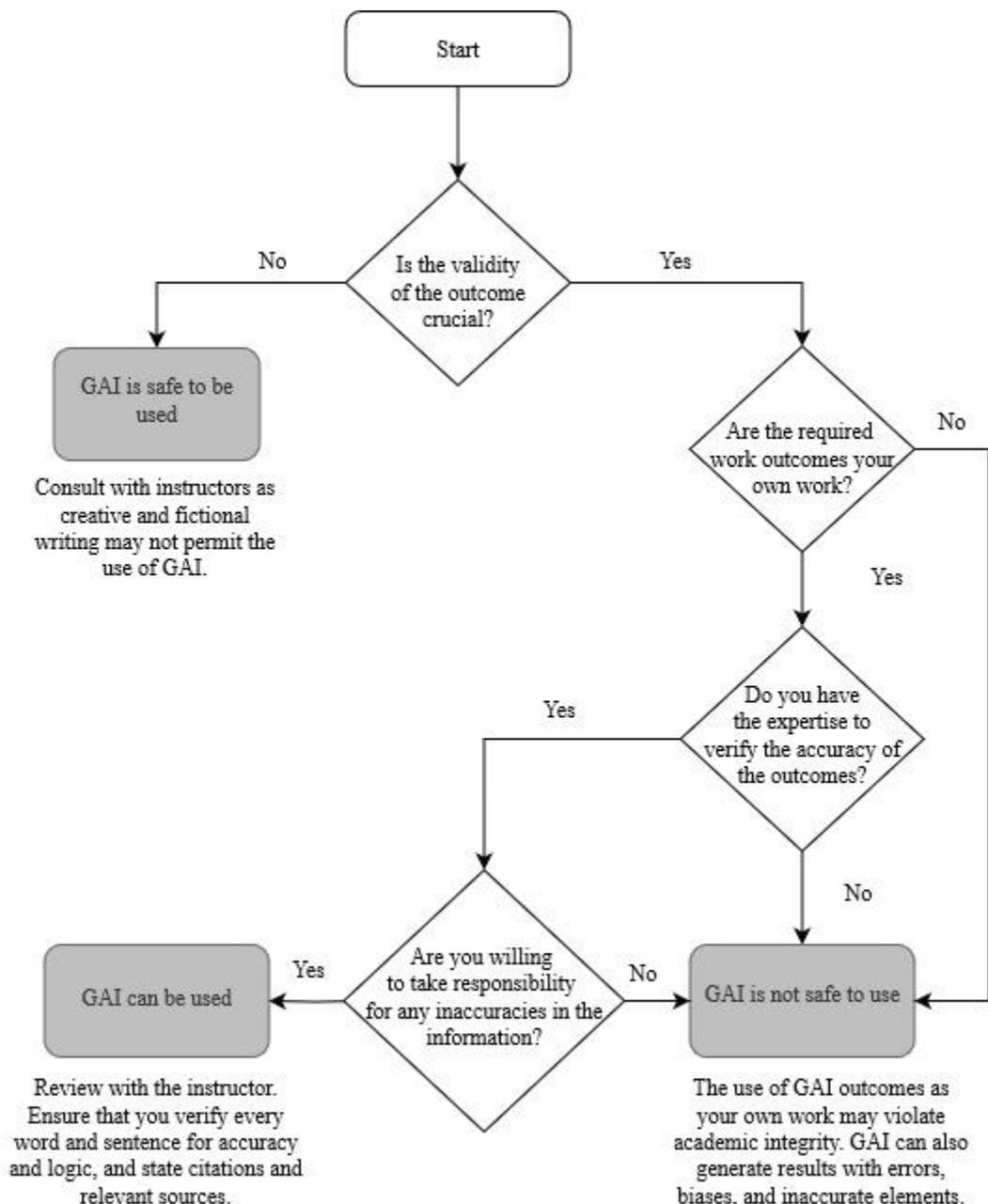
3.4 CONTROL VERSION AND CHANGE CHRONOLOGY

Version No.	Approval Date	Approved By	Amendment
01	27 March 2024	University Senate	-

SECTION 4 : SUPPORTING DOCUMENTS

4.1 DECISION-MAKING PROCESS FOR THE USE OF GAI IN TEACHING AND LEARNING

The following flowchart is adapted from "ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide" (UNESCO and UNESCO International Institute for Higher Education in Latin America and the Caribbean, 2023) to assist academic and non-academic staff and students in making decisions to use GAI in teaching and learning.



SECTION 5 : REFERENCE DOCUMENTS

Name of Documents	
1.	<i>ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide (UNESCO and UNESCO International Institute for Higher Education in Latin America and the Caribbean, 2023).</i>
2.	Foltynek, T., Bjelobaba, S., Glendinning, I., Khan, Z. R., Santos, R., Pavletic, P., & Kravjar, J. (2023). ENAI Recommendations on the ethical use of Artificial Intelligence in Education. <i>International Journal for Educational Integrity</i> , 19(1), 12.
3.	Miao, F., Holmes, W. (2023). Guidance on Generative AI in Education and Research, UNESCO.